**Digital Marketing Strategies for the Promotion of Genomic Testing**

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**ABSTRACT**

Genomic tests analyze DNA, RNA, Chromosomes and proteins to detect abnormalities that are inherited by birth or due to mutations that happened due to stress and environmental factors. Genetic information provides insights into current health status. With the genetic testing results, people will have access to information related to various diseases that they are at risk of developing in the future. This empowers them to make lifestyle changes to overcome this risk. However, many people are not aware about the unharnessed potential of their genetic information. Use of various digital marketing channels and social media strategies to increase information dissemination can help in creating awareness about genomic testing among people and to popularize direct-to-consumer genetic testing.

**Keywords** genomic testing; direct-to-consumer genetic testing; digital marketing; social media strategies

1. **INTRODUCTION**

In the new era of digital technologies being incorporated into healthcare sector. Incorporating various digital marketing strategies can be useful for creating awareness regarding genetic testing.

1. **OBJECTIVE**

The study seeks to identify different digital marketing channels and different digital marketing strategies for the promotion of genetic testing.

1. **Digital Technology and Health Care Sector**

Advancement in technology has played a key role in the health service delivery process. Mobile health technology has a significant effect on creating behavioral changes in health care consumers (Caroline et al.2013). Recent technological interventions like use of IoT have aided in proactively predicting healthcare issues (J T Kelly et al. 2020)

1. **Digital Marketing and Health Care Sector**

With the popularity of smartphones and access to internet which resulted in increased screentime, marketers can make use of content to lure customers. Thus, the marketers need to do research to find out the content that effectively lures in target audience (Subham Pandey and Nitin A Salunkhe 2022). Due to inbound marketing the physical distance between the customer and business is reduced with effective content marketing and enhanced technology using digital communication means. (Lordena Patrutiu\_Baltes 2016).

Advanced digital technologies have aided in healthcare market penetration and made it possible to provide value-based care to the customers (World Economic Forum 2017). Use of social media and other digital platforms, in healthcare has been proved to be successful in improving medical education and to handle public health crisis (Deema Farsi 2021).

1. **Genomic Testing and Recent Developments**

Over the years genetic testing has helped in predicting chances of contracting hereditary diseases and hence a chance for planning healthcare routine in advance (Sierra Sandler et al. 2018). The evolution of genetic testing with the aid of technology like artificial intelligence and with growing availability in genomic therapy in recent era, it is highly likely that clinicians to depend more in genomic testing (BD Solomon et al. 2022). There is huge knowledge divide regarding direct-to-consumer genetic testing among rural-urban residence and different racial ethnic group (Ramzi G Salluom 2018).

1. **METHODOLOGY**

Systematic Literature Review (SLR) is used for the study. Secondary data was collected by referring: conference papers from Proquest Library, Scopus, journals and articles from various other websites. And a literature review was conducted to arrive at results and conclusions.

1. **RESULTS AND DISCUSSIONS: PROMOTION OF GENOMIC TESTING USING DIGITAL MEDIA STRATEGIES**
2. **Social Media Strategies to Increase Brand Awareness**

When customers and prospects are educated, empowered and entertained, there is a likelihood, that customer engagement, customer loyalty and awareness increases.

1. Instagram and Twitter Carousels – photos and videos increase customer engagement
2. Short Form Vertical Videos of 20 – 60 Seconds- Instagram reels, YouTube shorts, Pinterest videos, Facebook videos, Twitter videos and LinkedIn videos should be given priority till we gain a good follower base
3. Using viral sounds as subtle music to videos
4. Reposting other people’s viral content which has relevance to the genomic testing services
5. Doing an Instagram remix or stitch of viral content related to the genomic testing services
6. Creating relatable short funny skits
7. Posting a minimum of 4 short videos per week or posting one short video daily and sharing to multiple platforms– by batch recording videos for a month and editing videos in batches – this increases productivity

 **a. Content for short videos:**

 A quick tip

 A) The process followed to get results for the services we provide

 B) Stats related to the DTC genetic testing

 C) Book recommendations

 **b. Video format to be followed for short vertical videos:**

 A) Talking straight to the camera

 B) POV videos

 C) Text on Screen videos

 D) Video with greenscreen feature

1. To increase chances of appearing in search results in Google when customers search for related products:
* FAQ session in website of genomic testing service provider – about basics of the scientific method used, different services provided, and different method used to deliver results
* Providing service specifications and prices of different services in website
* Including testimonials by previous clients in website
* Writing in research blogs and publications relevant to our industry about the different services provided by our company and the price of different services provided by us – comparing with our competitors.
* Creating and maintaining Wikipedia page for genomic testing service provided to provide information about various services
1. Including provision to book for tests by adding to cart and making payment using website of service provider
2. Email marketing to inform customers about our new products, new research development, offers and contests available to them during festive seasons
3. include provision for reward points for customers associated with referral program purchase and when they purchase from us and assign expiry date for the reward points
4. Loyalty points trading mechanism – making a provision for customers to exchange loyalty points with other customers for half the price
5. Fitness Contest – A chance to test for free
* Like the post
* Follow the page
* Tag 5 of fitness enthusiast friends in comments
* Share the post as Instagram story and tag the page
1. Give away free e-books, personalized diet plan based on some common health conditions
2. Identifying questions relevant to our services in Quora and answering them and writing about our services including information about procedure followed by our company will improve brand awareness in social media
3. Instagram Reels, Facebook videos, YouTube shorts, YouTube videos, Pinterest short videos, LinkedIn videos and Twitter videos and Podcasts- Apple Podcast, Google Podcasts, Amazon Music, Audible and Spotify and Clubhouse discussions related to different health conditions – symptoms and diagnosis – to spread general awareness and to increase social media presence
4. Including keywords and hashtags related to our services in YouTube video names and descriptions, Pinterest video descriptions and photo captions, LinkedIn posts, Facebook videos description and photo captions and posts, Instagram photo captions and video descriptions and Twitter video descriptions and photo captions and posts, improve chances of appearance in search engine results
5. Embedding YouTube videos, Instagram posts and videos, Twitter posts and videos and Facebook posts and videos, LinkedIn posts and Pinterest posts in blog posts
6. Sharing blog posts in other social media platforms raises brand awareness
7. Using science memes to market services, by increasing customer engagement
8. Creating a business account in Snapchat – create brand awareness among younger prospects, age-targeting and location-targeting custom creations such as information about new launches, offers, contests, useful information and memes to promote our services to reach desired audience and collaborate with other brands and creators if necessary
9. Launching online awareness campaigns, quizzes, challenges and contests on different ‘National and International days related to diseases and healthcare for women, children, senior citizens etc.’
10. Conducting online poster designing competition during days of national and international importance helps to increase brand awareness
11. Conducting polls and quizzes to educate customers about our services and its relevance
12. Conducting ASK ME ANYTHING sessions using Instagram stories, Clubhouse discussions, YouTube live sessions, Facebook live sessions and Instagram live sessions
13. Making use of Instagram broadcast channel, Facebook groups, Podcasts – Spotify, Apple Podcasts, Audible, Amazon Music, Google Podcasts, Clubhouse announcements and Facebook fan pages and LinkedIn groups to engage with interest groups and to make announcements related to information that should reach a massive audience
14. Conducting online awareness programs and webinars
15. When customers ask questions in comment session – answering them via Instagram DMs and Facebook messages or in case of YouTube videos replying to queries in comment session itself increases customer engagement
16. Making customers aware about the offers available to them during festive seasons and events – through E-mails, Instagram, Facebook, Twitter, YouTube, Pinterest and LinkedIn, Clubhouse announcements, WhatsApp and Snapchat
17. Provide Offers, Bonuses, conduct Contests and Giveaways: 3-6 times a year
18. Posting content using IGTV – to increase customer engagement
19. Sharing quotes in form of photos or short videos with subtle music, relevant to our business with Instagram id, Facebook id, Pinterest id, Twitter id, LinkedIn id and YouTube id watermark
20. Add Yours Sticker – Childhood photo - ‘Every child is Unique’ - Photo Challenge in Instagram to promote genomic testing in children
21. Posting customer experience and review videos in Instagram, YouTube, Facebook, Twitter, Pinterest and LinkedIn
22. Sharing customer experience and case studies during Clubhouse discussions and Podcasts – Amazon Music, Apple Podcasts, Google Podcasts, Audible and Spotify
23. Keeping social media accounts in multiple platforms active
24. Creating Podcasts on Google Podcasts, Amazon Music, Apple Podcasts, Audible and Spotify and Clubhouse discussions – interviewing experts, dive into the science behind services provided by genomic testing provider, to create awareness about different diseases symptoms, on topics of diet, nutrition, exercise etc. – that would create brand awareness and adds value to listeners
25. Starting referral program makes loyal customers our best advocates and increases reach
26. Using infographics to increase brand visibility
27. Sending birthday cards and special offers for their birthdays and inviting customer back with a percentage-off coupon helps in customer retention

1. **Three Types of Videos to Increase Social Media Engagement**
2. **50% of videos should be Attraction Videos** – to attract new customers by making videos on useful information – like healthcare tips - recommendations to improve their health – by including topic on diet, nutrition, scientific facts and common myths
3. **30% of videos should be Nurture Video**s – Answering FAQs through stories and live sessions – regarding services provided, procedure followed to provide services, common doubts related to healthcare, diet, nutrition, diseases, symptoms, diagnosis and prevention
4. **20% of videos should be Conversion Videos** – testimonial videos, case study videos, videos on how we have helped our previous clients and videos on how to book an appointment
5. **Strategies to Follow to Increase Customer Engagement using Podcasts**
6. Roll out a teaser or trailer episode – this builds hype to the listeners before releasing episodes
7. Initially launch a trailer and 3 episodes or more- sharing more content provides value to listeners
8. Inform listeners about podcasts release date and other information through other social media handles like Instagram, Facebook, Twitter, LinkedIn, YouTube, WhatsApp, Snapchat and Pinterest
9. It is crucial to create transcripts of podcast episodes. For each episode, generating a transcript and a detailed blog post, allows to deliver high-quality audio content to listeners while still tapping into search engine algorithms
10. Collaborating with other podcasts, creating a win-win scenario that boosts the followers of both shows.
11. **Strategies to Follow to Increase Customer Engagement using Clubhouse**
12. Build an engaged community and grow our company’s influence
13. Make announcements related to new product launch, offers and contests
14. Create separate rooms for announcing business-related news, offers and contests, educational and new developments in research information, expert talks and interviews, and new product information
15. **Strategies to Follow for Increasing Customer Engagement using WhatsApp**

Having WhatsApp chat feature enables to get quicker solutions to users and helps to build customer loyalty

1. Using WhatsApp chatbots to provide customer support, to book an appointment and to ask queries
2. Using WhatsApp to send promotional messages
3. Using WhatsApp to send transactional messages to customers after purchase
4. Using WhatsApp to send cart abandonment reminders
5. Using WhatsApp to enable customer feedback mechanism
6. Using WhatsApp to send offer reminders and contest alerts
7. Using hashtags to increase visibility of posts.
8. **Use of Hash Tags**

Creating custom branded hashtags is effective especially in Twitter and Instagram – it may take some time for it to catch on and take off, but it's worth working on as it increases social media reach. Incorporating the strategy of using hashtags for the online promotion of genomic testing will certainly boost customer awareness.

Three Strategies to follow while using hashtags:

1. Use 3-4 hashtags
2. Use 7-8 hashtags
3. Use 12-15 hashtags

**TABLE 1: Social Media Peak Timings**

|  |  |  |
| --- | --- | --- |
| **Hashtag Type** | **Purpose** | **Reference** |
| General Eg: #trending #popular #explore #viral #viralposts #viralpost #viralpostdaily #viralpostnow #relatable #relatablepost #follow #lifestyle #fitness #awareness #gene #genetics #research #fit #healthy #healthylifestyle #nutrition #kidshealth #instalike #technology #fitnesstracker #healthtech #innovation #familyhealthhistory #personalizednutrition #DNA #DNAnutrition #personalizedmedicine #dietition #nutrigenetics #doctorsofinstagram #prenatal #momtbe #prenatalgenetictesting #biotechnology   | These hash tags can be used for educational and as well as promotional videos and any post related to genetic testing to create awareness | Hashtags for #genetictesting to grow your Instagram, TikTok | best-hashtags.com. (n.d.). https://best-hashtags.com/hashtag/genetictesting/ |
| ContestsEg: #giveaway #freebies #freebie #InItToWinIt #contestalert #contest #contests #instagiveaway #giveawayalert #instacontest #contestentry #giveawayindia #contestalertindia #free #give #contestprep #event #megaevent #events #offers #excitingoffers  | These hashtags are used for spreading the information regarding contests and giveaways which would lead to promotion of genomic testing | Nambakhsh, C. (2022, April 19). 50+ Best Instagram Giveaway Hashtags to Use in Your Contest - Social Pros. Social Pros. https://socialpros.co/instagram-giveaway-hashtags/ |
| Memes/ Reels/ VideoEg: #meme #memes #memesdaily #viralreels #reelslife #reelsdaily #instareels #reels #reelsinfluencer #reelsoninstagram #trendingreels #fitnessreels #healthcarereels  | These hashtags help the post to go viral and for increasing customer engagement | Santora, J. (2023). Top 80 Instagram Reels Hashtags [+ Ideas to Help You Go Viral]. Influencer Marketing Hub. https://influencermarketinghub.com/instagram-reels-hashtags/ |

1. **Scheduling Posts in Social Media Handles to Increase Reach**

It was found that scheduling posts in social media handles have helped many sectors in business related to health care industries to boost up customer engagement and to build a relationship with prospects. Hence incorporating the same strategy for the promotion of genomic testing can help to increase customer awareness.

**TABLE 2: Social Media Peak Timings**

|  |  |  |
| --- | --- | --- |
| **Social Media Handle** | **Day and Timing** | **Reference** |
| 1. Instagram
 | Peak Timings: Wednesday-11.00 AM, Thursday-2.00 PM, 3.00 PM, Friday-10.00 AMOther Peak Timings: Monday, 5.00 AM, 6.00 AM, 10.00 AM, 11.00 AM, 1.00 PM ,10.00 PM, Tuesday-2.00 AM, 4.00 AM, 9.00 AM, 1.00 PM, 2.00 PM Wednesday-5.00 AM, 7.00 AM, 8.00 AM, 9.00 AM, 11.00 AM, 11.00 PM Thursday-5.00 AM, 6.00 AM, 9.00 AM, 11.00 AM, 12.00 PM,1.00 PM, 2.00 PM, 3.00 PM, 7.00 PM Friday-5.00 AM, 7.00 AM, 10.00 AM, 11.00 AM, 1.00 PM, 2.00 PM,3.00 PM Saturday-9.00 AM, 11.00 AM, 7.00 PM, 8.00 PM Sunday-1.00 AM, 7.00 AM, 8.00 AM, 4.00 PM, 6.00 PM, 7.00 PM, 8.00 PM | Cooper, P. (2023). The Best Time to Post on Instagram in 2023 [Complete Guide]. Social Media Marketing & Management Dashboard. https://blog.hootsuite.com/best-time-to-post-on-instagram/  |
| 1. Facebook
 | MONDAY,TUESDAY, THURSDAY,SUNDAY- 6.00 AM, 7.00 AM, 9.00 AM, 10.00 AM, 11.00 AM, 12.00 PM, 1.00 PM, 2.00 PM, 3.00 PM WEDNESDAY-6.00 AM, 7.00 AM, 11.00 AM, 1.00 PM | Geyser, W. (2023). What are the Best Times to Post on Facebook? (2023 Update). Influencer Marketing Hub. https://influencermarketinghub.com/best-times-to-post-on-facebook/ |
| 1. YouTube
 | MONDAY, - WEDNESDAY - 2.00 PM, 3.00 PM, 4.00 PM, 12.00 PM THURSDAY, FRIDAY- 1.00 PM, 2.00 PM, 3.00 PM SATURDAY, SUNDAY- 9.00 AM, 10.00 AM, 11.00 AM | Dscholar. (2023, March 4). What is the Best Time to Post on YouTube in 2023? - Digital Scholar. Digital Scholar. https://digitalscholar.in/best-time-to-post-on-youtube/  |
| 1. LinkedIn
 | WEDNESDAY- 8.00 AM, 9.00 AM, 10.00 AM, 12.00 PM, 3.00 PM THURSDAY - 9.00 AM, 10.00 AM, 1.00 PM, 2.00 PM FRIDAY - 9.00 AM, 11.00 AM, 12.00 PM | Keutelian, M. (2023). Best times to post on LinkedIn in 2023. Sprout Social. https://sproutsocial.com/insights/best-times-to-post-on-linkedin/  |
| 1. Twitter
 | MONDAY - 2.00 PM TUESDAY -8.00 AM THURSDAY - 8.00 AM, 9.00 AM, 10.00 AM, 11.00 AMOther Peak Timing: MONDAY - 9.00 AM, 10.00 AM, 11.00 AM, 12.00 PM, 1.00 PM, 3.00 PM, 5.00 PM TUESDAY - 9.00 AM – 7.00 PM WEDNESDAY - 7.00 AM – 3.00 PM, 5.00 PM – 7.00 PM THURSDAY - 6.00 AM – 7.00 AM, 12.00 PM – 4.00 PM FRIDAY - 8.00 AM – 9.00 AM, 11.00 AM – 12.00 PM SATURDAY - 8.00 AM | Kovalenko, M. (2021). Best Time to Post on Twitter to Boost Engagement (2022 Guide). Digital Marketers World. https://digitalmarketersworld.com/best-time-to-post-on-twitter/#sect1  |
| 1. Pinterest
 | MONDAY, - WEDNESDAY - 2.00 PM – 4.00 PM, 8.00 PM, 9.00 PM THURSDAY - 2.00 PM, 4.00 PM, 6.00 PM, 8.00 PM, 9.00 PM FRIDAY - 2.00 PM – 6.00 PM SATURDAY - 11.00 AM, 4.00 PM, 6.00 PM, 7.00 PM, 11.00 PM SUNDAY - 12.00 PM, 4.00 PM, 8.00 PM – 10.00 PM | Raj, K., & Raj, K. (2023, March 22). Best Times To Post On Pinterest For Maximum Engagement. Picmaker Blog. https://www.picmaker.com/blog/best-time-to-post-on-pinterest/  |

1. **CONCLUSION**

From the study conducted it was realised that along with traditional digital marketing strategies using new social media channels like clubhouse, snapchat, podcasts etc in promotion of genomic testing can increase awareness among customers, help in customer retention and build a relationship with prospects. Instead of sticking on to a single social media strategy using different social media handles will help in diversifying digital marketing of genomic testing.

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